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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,663	10/20/2003	Srikanth Natarajan	200309987	1858

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EXAMINER

RAO, SHEELA S

ART UNIT PAPER NUMBER

2125

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,663

Applicant(s)

NATARAJAN ET AL.

Examiner

Sheela Rao

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission of an RCE on November 21, 2005 has been entered and considered.
2. Claims 1-36 are pending and presented for examination. Claims 1, 6, 10, 15, 19, 24, 28, and 33 have been amended.

Response to Amendment

3. The rejection of claims 1-36 under 35 USC §102(b) as being anticipated by Stracke, Jr. (USPN 6,047,330) is the only pending rejection as per the final Office action. This rejection is withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,047,330 to Stracke, Jr. in view of US Patent No. 5,473,599 to Li et al.

The patented reference of Stracke discloses a virtual router system for computer applications. The system according to the patented disclosure provides a router discovery system capable of automatically configuring a virtual network topology. The patented reference teaches the limitations of the instant invention, as per instant claims 1, 6, 10, 15, 19, 24, 28, and 33, in that the obtaining information of a virtual router and using this information to determine the health of the virtual router is taught in column 1 at line 65, et seq. and in more detail in column 3, beginning at line 10. Wherein, it is taught that the transmission of a "heartbeat" is initiated and the data storage portion of the system records the number of hops or length of time that it takes for the heartbeat to reach its destination. In the event that the number of hops is high, the destination router is discarded and/or changed. This is analogous to

the "health" of the router in the instant application. Further, this information that is obtained is then used to produce a topology that identifies the health of the virtual router, see Figure 5. The prior art does not specifically suggest the identifying of active and standby states of the routers as per the instant limitations. To this effect, the patent to Li et al. (hereinafter, "Li") is relied upon. Li teaches a network system that identifies active and standby states of routers. A messaging system is disclosed that provides the router system with the ability to take on the role of an active router and allows for the standby router to become a redundant router. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the emulation technique of Li with that of the network system of Stracke so as to allow faster and better recovery of the router network system, as well as having continual information with respect to the "health" of the routers.

With regard to the limitations of instant claims 2, 7, 11, 16, 20, 25, 29, and 34, the aspects of monitoring messages in the network, using the information from the messages in determining the health of the virtual router, and updating the topology based on any changes that are deemed necessary is taught by the prior art of record in column 2 at lines 12 through 30; wherein the transmission process of the heartbeats is explained.

As per instant claims 3, 12, 21, and 30, the limitation claimed is essentially the basis of the instant invention and is taught by the Stracke, Jr. reference as mentioned heretofore. Also, see col. 2: ll. 22-30 and col. 4: ll. 36-45.

As with claims 4, 8, 13, 17, 22, 26, 31, and 35, where first information is defined to be that of group priority information and group standby information is claimed, this is also taught by the reference of prior art as aforementioned since information to identify the status of the routers is taught in column 3 beginning at line 8.

With regard to claims 5, 9, 14, 18, 23, 27, 32, and 36, the instant claims are claiming that the routers operate according to a virtual swappable router protocol. In the disclosure by Stracke, Jr., the routers operating in accordance with swappable router protocols is taught. The reference teaches that when a router goes down, the other routers open up connections until appropriate routers are established so as to restore connectivity of the virtual network. See col. 3: ll.34, et seq.

As to the use of a management computer and a computer readable medium in the form of a program as per claims 10-36, the reference of prior art teaches the use of The Manage Router Topology which manages the virtual network connections and automatically updates the database. In order for the computerized controller to be employed, a program or algorithm is necessary for it to function as needed for the system and/or method in use. See column 4, line 46, et seq. and Figure 5.

For the reasons stated above, the limitations of the claimed invention is taught by the prior arts of record; thereby, rendering the instant claims unpatentable.

Response to Arguments

Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection. Applicant continues to argue that the reference of prior art to Stracke fails to teach the "identifying" of active and standby states of the virtual routers. The recitation in question is stated in the preamble of the instant claims and has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Although the Examiner disagrees with Applicant's arguments regarding the teachings of the Stracke reference, the patent to Li et al. is relied upon to more directly teach and/or identify the use of such "identification" means/methods. The teachings of the Li et al. disclosure are stated above. As stated in the previous Office action, the disclosure of Stracke also addresses this aspect of the active and standby state of the routers. See col. 2: ll.3-17; col. 3: ll.24-32; and col. 4: ll.35-45 of the Stracke patent.

For the aforementioned reasons, claims 1-36 are not deemed allowable over the prior arts.

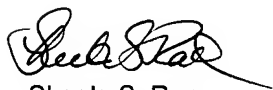
Conclusion

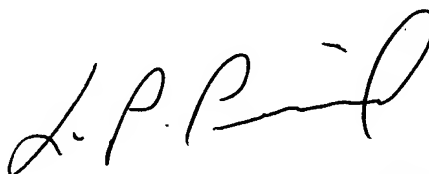
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (571) 272-3751. The examiner can normally be reached Monday - Wednesday from 8:30 am to 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. The fax number for the organization where this application or any proceeding papers is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. It should be noted that status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should any questions arise regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sheela S. Rao
January 25, 2006



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